

ABSTRACT OF THE DISCLOSURE

Provided is a fiber grating laser for optical communication which can be used as a light source regardless of the occurrence of mode hopping. The laser module comprises a semiconductor optical amplifier device, an optical waveguide such as an optical fiber, and a diffraction grating such as a fiber grating. The semiconductor optical amplifier device has first and second end surfaces. The optical waveguide is optically coupled to the semiconductor optical amplifier device. The diffraction grating is optically coupled to the optical waveguide. The semiconductor optical amplifier device and the diffraction grating constitute an external cavity. An optical cavity length of the external cavity is in a range of 13 millimeters or more but 27 millimeters or less.